

Response Under 37 CFR 1.116  
Expedited Procedure  
Examining Group 3722

## Remarks

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Claim Amendments

The features of claim 2 have been included in claim 1. Accordingly, claim 1 now defines that the area described by the main cutting edges by rotation of the drilling tool comprises a plane area.

Claim Rejections under 35 USC 102

Claims 1-6 and 10-13 are rejected under 35 USC 102(b) as being anticipated by Maier '389.

Valid rejection under 35 USC 102 requires that each feature of a rejected claim be disclosed in a single reference. "For anticipation under 35 USC 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present." MPEP 706.02(a).

Maier does not disclose each feature of the rejected claims in a single reference, and does not anticipate the present invention. Therefore, Applicant respectfully maintains that the rejection under 35 USC 102 is inappropriate and the claims, as amended, overcome the rejection under 35 USC 102.

Claim Rejections Under 35 USC 103(a)

The Examiner objects that the features set forth in claim 1 would be known from Maier. Claim 1 has been amended to include the features of claim 2, and claim 2 has been cancelled. Applicant respectfully maintains that claim 1, as amended, is patentable over Maier.

The Examiner stated that Maier shows the area that is described by the cutting edges comprises essentially a plane area intersecting any point of the cutting edges, for

Hakenjos - (H)02HAK0459USP - US Patent Application 10/614,381  
Amendment After Final Action with Fee responding to Office Action of 05/24/2006 submitted by fax with certification on 10/24/2006 4

Response Under 37 CFR 1.116  
Expedited Procedure  
Examining Group 3722

example, the outermost tip. Respectfully, the Examiner has misinterpreted the wording of claim 2 of the present invention. It seems that the Examiner regards any area that intersects with the trace of a rotating point of the cutting edges as falling under the subject matter of claim 2. However, claim 2 does not define an intersection of an area with a trace of a point of the cutting edges. Rather, at least a part of the area obtained by rotating the cutting edges must be planar. If a single point of the main cutting edges is rotated about the shank axis, a circular trace, but not an area, is obtained. The latter requires a line along the main cutting edges, but not a single point to be rotated about the axis.

Accordingly, a plane area described by rotating the main cutting edges about the shank axis can only be obtained if the main cutting edges extend along a line substantially vertically to the shank axis.

It is obvious from Maier's Figures that this condition is not fulfilled by any of the depicted drilling bits, as there is no section of the main cutting edges extending vertically to the rotation axis.

Furthermore, Maier points out that the object of maximized cutting efficiency, precise centering, minimized bending or flexural stresses would be achieved with inclining cutting edges (see col. 3, lines 11 to 40), which is just the opposite of what is claimed in amended claim 1. Thus, there would have been no motivation for a person skilled in the art to modify inclining cutting edges (i.e., cutting edges describing conical surfaces upon rotation about the shank axis) by cutting edges extending vertically to the shank axis.

#### Summary

Hakenjos - (H)02HAK0459USP – US Patent Application 10/614,381  
Amendment After Final Action with Fee responding to Office Action of 05/24/2006 submitted by fax with certification on 10/24/2006

5

Response Under 37 CFR 1.116  
Expedited Procedure  
Examining Group 3722

For anticipation under 35 USC 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. The cited art does not teach every aspect of the claimed invention. Therefore, the present invention is not anticipated by the cited prior art.

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OCT 24 2006

In regard to the rejections under 35 USC 103, the cited references do not motivate or suggest to a person skilled in the art to combine these references to duplicate the claims of the present invention. Therefore, the present invention is not obvious and is patentable over the cited prior art.

The current Amendment After Final Action is necessary to place the claims in condition for allowance or better condition for appeal, and does not add new matter. Applicant respectfully believes that the present amendment places the claims in condition for allowance.

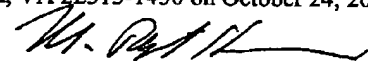
Wherefore, further consideration and allowance of the claims, as amended, is respectfully requested. A two-month extension of time in which to respond to the outstanding Office Action is hereby requested. A PTO 2038 in the amount of \$225 is enclosed for the prescribed Small Entity two-month extension fee.

Respectfully submitted,



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I hereby certify under 37 CFR §1.8(a) that this correspondence is being submitted to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on October 24, 2006 by facsimile transmission, fax number (571) 273 8300.

  
M. Robert Kestenbaum

Hakenjos - (H)02HAK0459USP - US Patent Application 10/614,381  
Amendment After Final Action with Fee responding to Office Action of 05/24/2006 submitted by fax with certification on 10/24/2006

6